

REMARKS

I. Amendments to the Claims:

Claims 38-57, 61-64, 66-84, 87-90, 92, and 94-100 are pending in this application.

Claim 78 has been amended to correct a clerical error. No new matter has been added by way of this amendment.

Claims 87 and 88 have been canceled herewith without prejudice or disclaimer of the subject matter contained therein. Applicants reserve the right to pursue the subject matter of these claims in this or a future related application.

Upon entry of the instant amendment, claims 38-57, 61-64, 66-84, 89-90, 92, and 94-100 will remain pending in this application.

II. Response to Restriction Requirement:

The Examiner has required restriction to one of the following inventions pursuant to 35 U.S.C. § 121:

Group I: claims 38-57, 89, and 99-100, drawn to methods of determining susceptibility of an atrophied thymus to reactivation by means of monitoring blood/serum marker levels, classified in class 424, subclass 9.2; class 435, subclass 7.1+; and class 436, subclass 86+.

Group II: claims 61, 90, and 96-97, drawn to methods of determining susceptibility of an atrophied thymus to reactivation by means of monitoring an *in vitro* response of blood T cells, classified in class 424, subclass 9.2 and in class 435, subclass 6.

Group III: claims 62-64, 66-84, 92, 98, and 100, drawn to methods of determining susceptibility of an atrophied thymus to reactivation by means of monitoring newly produced blood T cells, classified in class 424, subclass 9.2 and in class 435, subclasses 6, 7.24, and 91.2.

Group IV: claim 87, drawn to a method of enhancing transplantation of donor hematopoietic stem cells, classified in class 424, subclass 93.71 and in class 514/1-789.

Group V: claim 88, drawn to a method of increasing virus-specific peripheral T cell responses in a patient, classified in class 424, subclass 9.2 and in class 435, subclass 5.

Group VI: claims 94-95, drawn to methods of determining susceptibility of an atrophied thymus to reactivation by means of monitoring intracellular cytokine levels in blood T cells, classified in class 424, subclass 9.2 and in class 435, subclass 7.24.

Applicant elects **Group I, claims 38-57, 89, and 99-100** with traverse. Applicant traverses on the grounds that the claims of Groups I-III and VI overlap in their class and subclass and would therefore not entail any undue burden on the Examiner in searching for relevant art.

III. Response to Species Election Requirement:

a. The Examiner also required election of species if Applicant elects any of Groups I-III or VI from the following:

(i) a single species from the methods for disrupting sex steroid mediated signaling to the thymus (claims 43 and 44). Applicant elects *chemical castration*, with traverse. The claims readable on the elected species are *claims 38-42, 44-57, 61-64, 66-71, 73-84, 89-90, 92, and 94-100*. Applicant traverses on the grounds that there would be no undue burden on the Patent Office to Examine the different methods recited in the claims for disrupting sex steroid mediated signaling to the thymus.

(ii) a single pharmaceutical recited in claims 46-48. Applicant elects *leuprolide*, with traverse. The claims readable on the elected species are *claims 38-42, 44-47, 49, 50-57, 61-64, 66-71, 73, 74-76, 78, 79-84, 89-90, 92, and 94-99*. Applicant traverses the species election requirements made above for the following reason. According to MPEP § 803.02, if the members of a Markush group are sufficiently few in number or so closely related that a search and examination of the entire claim can be made without serious burden, the Examiner must examine all the members of the Markush group in the claim on the merits, even though they may be directed to independent and distinct inventions. In such a case, the Examiner will not follow the procedure described below and will not require provisional election of a single species. (emphasis added). Thus, the MPEP necessarily requires that the Examiner examine all species in the above claims where the number of species recited are sufficiently few in number. In addition, the recited species are also closely related.

b. The Examiner required that if Applicant elects *Group I*, Applicant further elect a species from the the markers recited in claim 57.

Applicant elects *Factor Thmique Serique (FTS)*, with traverse. The claims readable on the elected species are *claims 38-57, 89, 99, and 100*. Applicant traverses on the grounds that it would not constitute an undue burden to examine all the members of the Markush group together. For example, Applicants note that FTS and thymulin are very closely related (*see, Appendix A*). According to MPEP § 803.02, if the members of a Markush group are sufficiently few in number or so closely related that a search and examination of the entire claim can be made without serious burden, the Examiner must examine all the members of the Markush group in the claim on the merits, even though they may be directed to independent and distinct inventions. In such a case, the Examiner will not follow the procedure described below and will not require provisional election of a single species. (emphasis added). Thus, the MPEP necessarily requires that the Examiner examine all species in the above claims where the number of species recited are sufficiently few in number. In addition, the recited species are also closely related.

c. The Examiner further required that if Applicant elects *Group III*, Applicant elect a single species from the markers recited in claims 63-64.

Applicant has elected Group I, thus this election is not required.

CONCLUSION

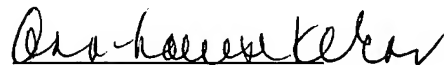
Upon entry of the instant amendment, claims 38-57, 61-64, 66-84, 89-90, 92, and 94-100 will be pending in this application.

Applicants petition for a five-month extension of time to respond to the Restriction Requirement. Please charge the requisite fees to our Deposit Account No. 08-0219. Other than these extension fees, no additional fees are due in connection with this correspondence. However, if any fees are due, please charge such fees to our Deposit Account No. 08-0219.

If a telephone interview would advance prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,

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